Experiment of Telecom Customer's Needs and Satisfaction Based on Kano Model

Vippa Dhingra, Kishore Gangwani, Sarika Keswani

Abstract- *with the changing technology customers are more aware of services available to them. They access wide range of information of available products and services which has lead to change in their perception about services and service providers. This has made telecom a hard sector to survive for telecom service providers. These changes in behavioral intentions has made it necessary to us understand what all services customers feel a mandatory part of telecom service and what attract them to reuse the service. To study these customers needs Kano model was applied to category services of SERVQUAL model on four quadrant - attractive, one dimensional, must-be and indifferent. The result stated that network performance attract telecom customers the most and tangibility factors are the ones which service providers can minimize as customers are indifferent about them. Safety and security in transaction is one dimensional factor that can increase customer satisfaction. Must be attributes need to be continued to maintained customers stay with the telecom brands. Thus study tried to understand behavior of customers and identify factors that could increase customer satisfaction.*

Index Terms— One-dimensional, SERVQUAL, Kano Model, Behavioral Intentions, Telecom Service providers.

I. INTRODUCTION

Indian telecom industry is growing at a very fact pace. It is second largest market growing with a subscriber base of 1.20 billion as of December 2018. With such a high pace growth, the customer's needs and demands changing. India is second in using internet, app downloading and telecom subscription (IBEF report march 2018).This technological advancement has made customers more knowledgeable and demanding. Thus organizations need to identify attributes that makes customers satisfied. The attributes that may excite customer's once, becomes must be after some time. Telecom sector has moved ahead from being a source of tele-Calling. It is a technology that connects people to the environment by used of social media and websites/ applications for almost all sort of transactions. Thus this shift in technology leading to change in customer's perception about service attributes is needed to be studied. Service has been previously studied by researchers on the basis of several models. Two most popular ones are SERVQUAL[11] and SERVPREF [2].

Servqual suggested that service quality has five dimensions namely reliability, responsiveness, empathy, assurance and tangibility. Kano model was developed by Noriaki Kano [7]. This model states three types of requirements that lead to customer satisfaction – must be, one dimensional and attractive. This study tries to integrate the factors of SERVQUAL and uses Kano model to identify which factors falls in must be, one dimensional, attractive and indifferent and reverse groups.

II. REVIEW OF LITERATURE

Service quality provides competitive advantage by measuring service quality leading to improved service performance and customer satisfaction. SERVQUAL model [11] measures five dimensions of service quality which are based on customers' expectations and perception about services. Tangibility is the physical appearance of the service in the form of physical service store, equipments, interior and other things which form physical service environment [14]. Assurance is the capabilities of employees to infuse trust among their customers. This is done by effective communication with customers, being polite with them, handling customer's queries with competence and serving customers properly which assures them that they are safe with the service provider. All these boost confidence among the customers [3].
Reliability refers to ability to provide promised services to the customers as and when promised. Providing right services as communicated to the customers is necessary for customers [14]. Responsiveness is the willingness of the company to provide help to the customers. Quick response, helping customer to meet their needs and showing concern to their problem makes customers feel better. Even in case of service failure, quick responses to recover services professionally create positive impression among the customers [4].Empathy is the care and attention provided to the customers. It creates positive influence on customers. Network performance include network quality, call drop rate, video and voice call quality, downloading speed, network strength and network coverage [9].
 Kano model was developed by Noriaki Kano for product design and then has been used in services also by researchers.
Kano Model has been applied by researchers in wide variety of services like banks, supermarkets [12],[6] innovative product developments, new service innovations etc. He identified five attributes – must be, one dimensional, attractive, indifferent and reverse. Must-be specifies basic features that need to be in the product/service and in absence of these customers will be highly dissatisfied. The presence of these does not create satisfaction as customers feel that they are basic requirement, but their absence will lead to dissatisfaction.

One dimensional focuses on functionality of product or service in catering customers' needs. Availability of these creates high level of satisfaction. Attractiveness is the level of excitement that is created by these attributes among customers as they are new to customers and they have not thought of these. These will create high satisfaction but absence of these attributes does not create dissatisfaction among customers. With time and usage these attributes become one dimensional and then must be. These three types of attributes are related to customer satisfaction.

Indifferent attribute does not create any satisfaction or dissatisfaction among the customers. Customers are not bothered about existence of these attributes. Reverse are some attributes which may cause dissatisfaction when present. There absence helps attaining satisfaction.

III. RESEARCH OBJECTIVES

1. As demonstrated in this document, the numbering for sections To identify the service quality factors that leads to satisfaction of telecom customers.
2. To highlight which service quality factors can increase the level of satisfaction.
3. To examine behavioral intentions of telecom customers while choosing a service provider.

IV. RESEARCH METHODOLOGY

The research used descriptive method to study the factors of service quality leading to customer satisfaction and dissatisfaction. The respondents for study were customers of telecom service providers in Central India. Convenient sampling was used for data collection using self structured questionnaire designed on Kano method. Total 300 questionnaires were distributed for getting the response, but only 247 questionnaires were completely filled and used for the study. The questionnaire is based on SERVQUAL [11] twenty two item scale questions and four questions for network performance [13] which were structured into Kano way. For each feature requirement two questions were asked one positive (functional) and other negative (dysfunctional). The questions were answered on five point scale: like as 1, must-be as 2, neutral as 3, live with as 4 and dislike as 5. The answers with highest count of respondents with each feature was picked as category with rule of M>O>A>I.

V. RESULTS AND DISCUSSION

The result of the questionnaire is analyzed on Kano model of all 247 respondents to identify functional and dysfunctional feature requirement.

Table I: Summary of Telecom Sector Service Providers Kano Model Result.

S.No	Service Provider Characteristics	A	O	M	I	R	Q	Total	Category
1	N1- Wide network coverage.	180	7	42	15	2	1	247	A
2	N2- Strong network connectivity.	142	62	43	0	0	0	247	A
3	N3 – Maintain good network speed.	170	52	25	0	0	0	247	A
4	N4- Excellent voice & video call quality.	160	65	22	0	0	0	247	A
5	RL1- Sincerely solves my problems.	2	72	150	3	0	0	227	M
6	RL2- Provides right service the first time.	27	83	120	17	0	0	247	M
7	RL3- Keeps accurate records.	68	70	108	0	1	0	247	M
8	RL4- Keeps its promise.	70	77	99	1	0	0	247	M
9	RL5- Performs task as and when promised.	50	82	111	1	1	2	247	M
10	REP1- Properly & timely informed of service delivery.	77	98	72	0	0	0	247	A
11	REP2- Gives prompt service.	42	52	111	37	2	3	247	M
12	REP3- Always willing to help you.	78	77	70	22	0	0	247	A
13	REP4- Available o respond to your request.	88	72	68	19	0	0	247	A
14	EM1- Provides you individual attention.	16	112	117	2	0	0	247	M
15	EM2- Has convenient working hours.	25	101	121	0	0	0	247	M
16	EM3- Understands your service needs.	124	44	78	1	0	0	247	A
17	EM4- Employees provide personal attention.	110	25	12	12	48	40	247	A
18	EM5- Is best interest at heart.	25	98	88	22	10	4	247	O
19	ASS1- Infuse confidence in me.	60	78	65	37	7	0	247	O
20	ASS2- Makes safe in performing transactions.	54	88	99	5	1	0	247	O
21	ASS3- Employees are courteous.	152	45	16	12	12	10	247	A
22	ASS4- Answers queries properly.	124	111	10	2	0	0	247	A
23	TN1 – Physical store facilities are attractive.	77	3	45	122	0	0	247	I
24	TN2- Employees are properly dressed.	5	7	17	189	15	14	247	I
25	TN3- Has modern equipment.	42	38	14	121	12	20	247	I
26	TN4- Equipments are visually appealing.	17	32	14	171	12	1	247	I

Customer Satisfaction Coefficient

The Coefficient of satisfaction indicates the level of satisfaction which can be achieved by meeting the requirement and its absence can lead to level of dissatisfaction. The coefficient of satisfaction [1] is calculated as:

$$SI = \frac{A+O}{A+O+M+I} \tag{1}$$

$$DI = \frac{O+M}{A+O+M+I} \tag{2}$$

SI refers to Coefficient of Satisfaction and *DI* as Dissatisfaction Coefficient. *A* represent Attractive, *O* as One-Dimensional, *M* as must-be and *I* as Indifferent.

Table I: Summary of Telecom Sector Service Providers Kano Model Result.

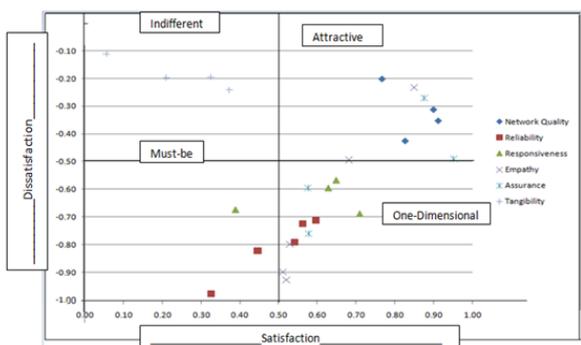| S.No	Service Provider Characteristics	A	O	M	I	R	Q	Total	Category
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Figure 1: Customer Satisfaction Coefficient Diagram

Positive Customer satisfaction coefficient has value ranging from 0 to 1. The more the value of attribute is nearer to 1, it represent higher influence on telecom customer satisfaction. Customer dissatisfaction occurs with negative coefficient.

Table 2 represent that Network Performance attributes (N1= 0.77, N2= 0.83, N3= 0.93 and N4= 0.91) are the one which provide customers higher levels of satisfaction. Similarly two attributes of empathy, understanding customer's needs and providing personal attention to customers are also under attractive category. Service provider's employees being courteous and helping customers by answering their queries properly are also factors which customers consider important while making a choice among various telecom service providers available in the region. They are shown in attractive quadrant of figure 1. This states that service providers need to emphasis on more of these attributes to increase the level of satisfaction as

customers are attracted by these attributes.

Similarly all attributes of reliability - solving customer's problems, providing right services, serving as promised and keeping accurate records are considered to be the basic services to be provided by telecom service providers. Giving prompt reply to customers, supporting customers by providing individual attention and operating at convenient working hours of telecom service providers as also the must-be requirement as shown by figure 1. Thus telecom service providers need to give proper attention to these attributes, as they may lead to dissatisfaction and switching of customers to other service providers if not taken into consideration.

Providing safe and secure transaction is the concern of customers. Infusing confidence in customers by the way service providers employees behave with them, trying to provide best interest are some features which differentiate one service provider from others. For these features customer is willing to pay even higher price as compared to alternative service providers available in the market. Thus service providers need to give maximum emphasis to these one-dimensional service attributes as these can lead to highest degree of customer satisfaction. If not given proper consideration, these can lead to greater level of dissatisfaction among the customers (Matzler et al.1996).

With the technological up gradation in telecom sector, customers interact with service providers by using mobile apps, customer care centers and virtual help desk. So, physical service environment especially in telecom sector is not the concern of telecom customers. Thus they have an indifferent attitude towards these services for tangibility features as shown in figure 1. These features will not affect the level of satisfaction among telecom customers, so service providers can try to minimize these features and give more emphasis on attractive category which excites and delights the customers.

VI. CONCLUSION

The study tried to identify service quality factors of telecom sector that have an impact on customer satisfaction. Moving to 4G technology, customer behavior has changed. The features which ones used to excite customers have now become necessary part of services. Twenty six variables of service quality were taken under study including network performance to analyze their impact on customer satisfaction. The results as shown in Table 2 suggests that high end network coverage, strong network connectivity, high Speed with excellent voice & video call quality, timely delivery of services, quick response to request, helping customers, providing personal attentions as per the needs, answering customer's queries and staff courtesy are the features which telecom customers give due importance and thus attract them while choosing a telecom service provider. All these are shown in attractive quadrant in figure 1. Improvement in these will increase the level of satisfaction and attract new customers. Telecom customer consider some basic features like maintaining accurate records, providing right services, individual attention at convenient working hours as part of telecom service. These are assumed to be-must features for continuing the services. Without these the customers will switch to other service providers as they will be dissatisfied.

One-dimensional features are the ones in which customers are more interested in and will pay high price. Safety of records of transactions along with customer's personal details can boost confidence in them and can lead to high level of satisfaction. Lastly, telecom service providers can reduce the emphasis on physical environment (tangibility) which can help them in minimizing cost incurred in maintain physical store. Avoiding them can help in saving cost, time as well as resources of telecom service providers and help them in focusing on attractive and one dimensional category.

The study can be further taken on wide geographical area with more variables having impact on customer satisfaction. Brand image, trust, switching cost, price perception etc were not taken in the study due to time constraint which can be explored further. This study has tried to study the impact of all 26 features on customer satisfaction which represents behavior of customers.

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